Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of transporting a Time Division Multiplexing (TDM) data frame across an Ethernet switch, comprising:

receiving a TDM data frame from an inbound TDM data stream at the Ethernet switch, wherein the TDM data frame comprises TDM data and transmission information; ~~a payload field and a destination field;~~

writing ~~contents included within the payload field of~~ the TDM data ~~frame to~~ into a first field in an Ethernet frame;

writing ~~contents included within the destination field of~~ the transmission information ~~data frame~~ to a second field in the Ethernet frame;

~~transporting~~ sending the Ethernet frame to a destination associated with the transmission information through the Ethernet switch ~~to the an outbound TDM data stream according to the destination field's contents~~; and

reassembling the TDM data frame at the destination into an outgoing TDM data stream based on the TDM data and transmission information. ~~extracting information included within the first field of the Ethernet frame and the second field of the Ethernet~~

~~frame upon the transported Ethernet frame's arrival at the outbound TDM data stream, wherein the extracted information comprises an extracted TDM data frame; and~~

~~sending the extracted TDM data frame from the Ethernet switch via the outbound TDM data stream.~~

2. (Currently Amended) The method of ~~Claim~~ claim 1 wherein ~~packetizing includes: writing data from the inbound TDM stream into~~ the first field of the Ethernet frame is a payload field of an Ethernet packet[[;]] and the second field of the Ethernet frame is a ~~writing the TDM block identification information into the~~ header of the Ethernet packet.

3. (Currently Amended) The method of ~~Claim~~ claim 1 wherein receiving the TDM data frame from the inbound TDM data stream further includes writing the inbound TDM data stream to a first buffer, and while writing at least one TDM data frame stored in the first buffer to the Ethernet frame, writing the inbound data stream to a second buffer. ~~packetizing includes: writing data from the inbound TDM stream to a first buffer; and writing data from the inbound TDM stream to a second buffer while the data stored in the flrSt buffer is written into the Ethernet packet.~~

4 – 9 (Cancelled)

10. (Currently Amended) A switch with an Ethernet backplane, the switch comprising:

a bus; and

at least one line card connected to the bus, ~~each line card including:~~ each line card configured to ~~circuitry to~~ write TDM data frames from an incoming Time Division Multiplexing (TDM) stream into Ethernet packets by writing TDM frame data comprised of TDM data and transmission information ~~, circuitry to write TDM block identification information~~ into the Ethernet packets and configured to send the Ethernet packets to a destination over the Ethernet backplane.[[;]]

~~circuitry to send the Ethernet packets over the backplane; and~~

~~circuitry to write the data from the Ethernet packets into an outgoing TDM stream.~~

11. (Currently Amended) The switch of ~~Claim~~ claim 10 wherein each line card further comprises: ~~includes:~~

a ~~flrst~~ first buffer to receive and store the TDM data frames from an inbound TDM data stream; and

a second buffer to receive and store additional TDM data frames from the inbound TDM data stream while the TDM data frames previously stored in the first buffer are written to the Ethernet packets. ~~double buffer the incoming and outgoing data~~.

12. (Cancelled)

13. (Currently Amended) The switch of ~~Claim~~ claim 10 wherein each line card is further ~~includes: circuitry~~ configured to write the TDM data of a TDM data frame into a ~~flrst~~ first field in ~~the~~ a corresponding one of the Ethernet packets, and ~~circuitry~~ to write

the transmission information of the TDM data frame ~~TDM block identification information~~ into a second field in the corresponding one of the Ethernet packets.

14. (Previously Presented) The switch of claim 13 ~~method of Claim 9~~, wherein the transmission information includes ~~second field is a destination field and the~~ TDM block identification information and each line card is further configured to write the TDM block information ~~is written~~ into the lower bits of the second field of the Ethernet packet. ~~destination field.~~

15—23 (Cancelled)

24. (New) The method of claim 1, wherein transmission information data includes at least one of TDM destination data, TDM block identification data, and outgoing insertion timing data.

25. (New) The method of claim 24 wherein the information which indicates an appropriate time to insert the data into an outbound TDM data stream comprises information identifying which block of the inbound TDM data stream the received TDM data frame arrived in, wherein the identity of the block is utilized in order to reassemble the received TDM data frame as it is extracted from the Ethernet frame.

26. (New) The method of claim 1, wherein the destination associated with the transmission information is a line card in the Ethernet switch.

27. (New) The method of claim 1, wherein the destination associated with the transmission information is another Ethernet switch.

28. (New) A machine-accessible medium that provides instructions that, if executed by a machine, will cause the machine to perform operations including:

receiving a TDM data frame from an inbound TDM data stream at an Ethernet switch, wherein the TDM data frame comprises TDM data and transmission information;

writing the TDM data into a first field in an Ethernet frame;

writing the transmission information ~~data frame~~ to a second field in the Ethernet frame;

sending the Ethernet frame to a destination associated with the transmission information through the Ethernet switch; and

reassembling the TDM data frame at the destination into an outgoing TDM data stream based on the TDM data and transmission information.